



## Transmission Business Line (TBL) Fact Sheet and Frequently Asked Questions

### ATC Methodology for BPA's Transmission Network

#### Decision:

TBL has developed a new methodology for determining Available Transfer Capability (ATC) that will be used to manage internal constrained transmission paths on the BPA transmission network. This methodology will allow TBL to monitor ATC at nine network flowgates (a constrained path on the transmission network) for such needs as transmission system planning, system operations and transmission marketing.

TBL will post the methodology and results and respond to a number of customers that have requested long-term transmission service and have been waiting in the request queue. Some new long-term transmission sales will be possible but many customers will need to agree to help finance new transmission infrastructure in order to receive service. Managing transmission operations at each flowgate for scheduling and curtailments will need to wait for development of new automated tools and business practices. The methodology and all supporting documentation can be found at:

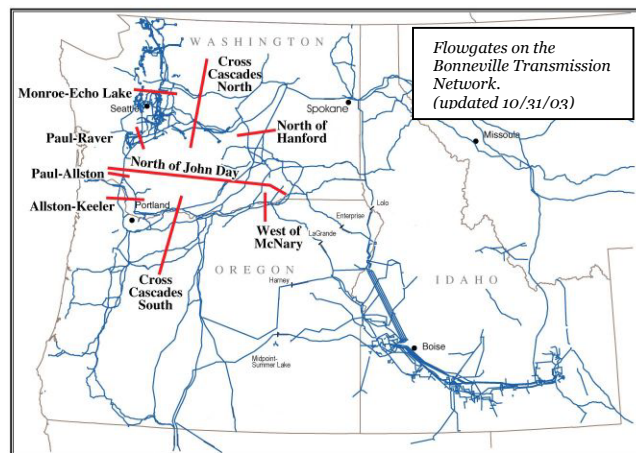
[http://www2.transmission.bpa.gov/Business/Customer\\_Forum\\_and\\_Feedback/Contract\\_Lock/](http://www2.transmission.bpa.gov/Business/Customer_Forum_and_Feedback/Contract_Lock/)

TBL is required under the Tariff to post its ATC Methodology on its OASIS along with a forecast of ATC for constrained transmission paths. The posting and forecast may be found on the TBL's OASIS web site after November 10, 2003:

<http://www.nwoasis.org/OASIS/BPAT>

#### Facts on the ATC Methodology:

- TBL has developed and adopted a new flowgate-based methodology for determining Available Transfer Capability (ATC) on BPA's transmission network.
- The ATC methodology uses a "flowgate-based approach" to identify the impact of any transaction within the network over the designated flowgates (see map). Understanding the direct impact of these transactions on specific flowgates in the system helps TBL more accurately define the need for new transmission infrastructure and where and when non-wire alternatives might be possible..
- The methodology will optimize the use of BPA's existing transmission assets to meet current and future long-term firm obligations without reducing quality of service to existing contract holders, increasing the frequency and cost of redispatching generators to reduce transmission constraints or increasing the frequency of curtailments.
- The methodology builds the framework for evaluating and tracking federal generator redispatch and curtailment that will enable more efficient curtailment and redispatch operations on the network.
- The methodology combines a planning power flow analysis with an accounting of existing firm transmission contracts that TBL is obligated to serve.



- Important assumptions of the ATC methodology include; Total Transfer Capability (TTC) of the transmission lines and facilities that comprise the flowgate, Path Utilization Factors (PUF) that determine how power will flow through each flowgate from a point of receipt to a point of delivery, forecasts of how federal and non-federal generators will operate each season and assumed Network Integration service (NT) load growth.
- TBL has worked with PBL and its customers to define the dispatch pattern for federal generator projects that will provide sufficient transmission for NT customers while allowing other customers access to the transmission system.
- Posting the ATC methodology and results will enable TBL to proceed with clearing the long-term transmission request queue. Other customers, whose requests affect ATC on primary transmission paths that are constrained, will be asked to help finance new facilities as a condition for service.
- TBL developed the flowgate-based ATC methodology in an informal public process that was created as a corollary to the Contract Lock process. All materials, information and any customer comments associated with the public process can be found on TBL's Contract Lock web site (see link above).

## Frequently Asked Questions (FAQ)

### *Q: What is Available Transfer Capability (ATC)?*

ATC is a measure of inventory on the transmission network available to accommodate requests for service on a Flowgate.

### *Q: Why does TBL need a new ATC Methodology?*

The current physical limitations across specific paths of BPA's transmission network is adding operational complexity and has made it difficult to evaluate and be responsive to new transmission service requests. As the region grows and pushes the limits of the physical infrastructure, this need becomes even more of a priority.

### *Q: What is TBL's new ATC Methodology?*

The new methodology is a combination of traditional planning power flow study and contract accounting methods for determining ATC at nine internal network flowgates (see above map). There are several key components to the methodology, which include:

- Traditional planning power flow analysis that looks at how specific transmission facilities will be loaded in the future under a variety of scenarios and operating conditions.
- Contract accounting that identifies existing and forecasted long-term firm transmission obligations.
- Path utilization factors that calculate how power flows over BPA's transmission network from any point of receipt to any point of delivery.
- Assumptions about how federal generators will operate and therefore how much transmission is needed to meet TBL obligations under NT contracts held by many of BPA's customers.
- A Transmission Reliability Margin (TRM) that will be held out in order to account for load forecast error, inherent modeling uncertainty and nomograms.
- A 20-year projection of ATC by flowgate. This projection will be updated at least once a year.
- A *de minimis* impact dead-band to account for new transmission requests that have minimal impacts to flowgates.

### *Q: Is the ATC Methodology applied to transmission requests on the interties?*

No. The flowgate-based ATC Methodology will be used only for the internal network. The new methodology will not be used to determine ATC for interties and for external interconnections that are now posted on TBL's OASIS.

### *Q: What are the major benefits associated with the new methodology?*

- Will allow TBL to be responsive to those waiting in the request queue for long-term service.

- Better identification of infrastructure needs and non-wire alternatives to reduce or eliminate flowgate constraints.
- More efficient curtailment and redispatch operations (potential reduction in impacts to overall transmission system).
- Development of new Tariff-based products that may more fully utilize ATC.
- Some new revenue for TBL.
- Framework for defining transmission needed for NT service for federal generators.
- Framework for evaluating and tracking federal generator redispatch and curtailment.
- Responsive to Tariff requirements for posting ATC.
- More efficient overall use of the transmission system.

*Q: What are some of the costs and risks associated with the new methodology?*

- While TBL believes that the ATC results are based on conservative assumptions, projections could turn out to be wrong and new long-term sales may accelerate the need for new transmission facilities.
- Major changes in the hydro system or its operations may require changes in the assumptions for federal project dispatch.
- PBL redispatch costs under the Tariff could increase. The TBL payment to the PBL could increase after the end of the current rate period.
- Frequency of curtailments for existing users could increase.

*Q: What are some of the issues customers have had with the methodology?*

- Public Power (PPC, PGP & PNGC) is supportive of the need to adopt the new ATC Methodology but is concerned that transmission rights for existing users may be impinged upon. Public Power has asked that additional TRM be set aside to deal with unforeseen contingencies that could potentially result in increased transmission costs (in response, TRM levels were increased).
- IPP/Marketers are encouraged that TBL is moving forward with the ATC methodology and with responding to those waiting in the request queue. A number of IPP's expressed concern that assumptions are too conservative, that very little long term ATC is available and that tools necessary to manage operations at each flowgate will require several months of development work.
- IOU's are watching very carefully as the methodology may set precedent for regional ATC and congestion models. IOU's have also expressed concern that the methodology may not fully account for transmission flows over parallel facilities that they own.
- Interest Groups have not expressed support or concern with the methodology. TBL is continuing to do outreach to these groups.

*Q: How does the ATC Methodology relate to Contract Lock?*

Contract Lock consists of three primary components: preservation of rights under existing contracts and Tariff, congestion rate treatment and defining the amount of transmission needed for NT load service (NT Rights). By developing the ATC Methodology, TBL has taken a major step toward defining network transmission needed for NT contract holders. We plan to continue discussions with customers on how to define NT Rights in new or replacement contracts. Also we expect to continue to evaluate the need for congestion rate and preservation of rights as the region clarifies the scope and effect of an RTO or "RTO-like" regional transmission organization.

*Q: What are the next steps associated with the ATC Methodology?*

TBL will post the ATC Methodology and 20-year ATC forecasts on its OASIS and will begin the process of responding to new service requests that are in the long-term request queue. Also TBL will develop the automated tools necessary to implement the ATC Methodology, which includes tools for reservations, scheduling and curtailments. During this time, TBL will work with the PBL to evaluate the "Modified 90th Percentile" assumption regarding use of network transmission for federal generation to ensure that sufficient flexibility is provided for operating the hydro-based power system for meeting NT loads.